Object Oriented Javascript

Built-In Objects in Javascript
https://www.w3schools.com/js/js_object_definition.asp
https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects

Object Oriented Javascript
https://developer.mozilla.org/en-US/docs/Learn/JavaScript/Objects/Basics

Prototype in Javascript
https://www.w3schools.com/js/js_object_prototypes.asp
https://www.tutorialsteacher.com/javascript/prototype-in-javascript
https://medium.com/better-programming/prototypes-in-javascript-5bba2990e04b

Inheritance in ES2015 way and ES5
https://medium.com/developers-arena/javascript-classes-inheritance-and-prototype-chaining-es5-and-es6-way-4b8e9416702b

Pseudo Classical Inheritance in Javascript
https://eli.thegreenplace.net/2013/10/22/classical-inheritance-in-javascript-es5
JavaScript Closure
https://www.w3schools.com/js/js_function_closures.asp

https://developer.mozilla.org/en-US/docs/Web/JavaScript/Closures

https://javascript.info/closure

https://medium.com/javascript-scene/master-the-javascript-interview-what-is-a-closure-b2f0d2152b36

https://www.tutorialsteacher.com/javascript/closure-in-javascript

Module Pattern

https://medium.com/technofunnel/data-hiding-with-javascript-module-pattern-62b71520bddd#:~:text=The%20Module%20Pattern%20is%20one,the%20scope%20of%20the%20function.

https://dzone.com/articles/module-pattern-in-javascript

Video Links
    Prototype
    https://www.youtube.com/watch?v=hS_WqkyUah8

    Object Oriented Javascript - look for the whole series (First for ES5 and then for ES2015)
    https://www.youtube.com/watch?v=f5wGZiYVfjk&list=PL7pEw9n3GkoW0ceMeoycg9D00YjPAbtvt

    Javascript Closure
    https://www.youtube.com/watch?v=71AtaJpJHw0
    https://www.youtube.com/watch?v=3a0I8ICR1Vg

Module Pattern
    https://www.youtube.com/watch?v=pOfwp6VlnIM
    https://www.youtube.com/watch?v=SKBmJ9P6OAk

Assignments

- Write a JavaScript program to delete the rollno property from the following object. Also print the object before or after deleting the property.
  Sample object:
  var student = {
  name : "Sachin Tendulkar",
  sclass : "X",
  rollno : 10 };

- Write a JavaScript program to display the reading status (i.e. display book name, author name and reading status) of the following books. Go to the editor

  var library = [
    {
      author: 'Shiv Khera',
      title: 'YOU CAN WIN',
      readingStatus: true
    },
    {
      author: 'Robin Sharma',
      title: ' The Monk Who Sold His Ferrari',
      readingStatus: true
    },
    {
      author: 'Rashmi Bansal',
      title: 'I Have a Dream',
      readingStatus: false
    }];

- Write a JavaScript function to check whether an object contains given property.
  e.g. Check Player Object has Score property
  HINT: hasOwnProperty()

- Create class Person with Name and Gender, Program should be able to display Population, even when new object would get created, Population could also get incremented.
  HINT: Use Static Variable

- Do the Inheritance in following classes using
    - Prototype Chaining
    - Classical Inheritance
    - Pseudo Classical Inheritance

List down advantages and drawbacks of

Prototype Chaining and Classical Inheritance

Base Class/ Super Class Person and
Derived Class/ Sub class Player

Person – name, age, gender - properties and
    Introduce – Prototype Level Method
    showAge – Class Level Method

Player – score, no_of_matches – properties
    Introduce – Overridden Method

- Create a mechanism that would allow you to increment and decrement a counter by 1, only through the method increment and decrement exposed, and shouldn't allow anyone else to modify that counter directly.
    HINT: - make use of closure